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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/742,155

12/19/2003

Kumar S. Golla

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08/22/2005

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EXAMINER

CHEN, WENPENG

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/742,155

Applicant(s)

GOLLA ET AL.

Examiner

Wenpeng Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Examiner's responses to Applicant's remark

1. Applicants' amendments filed on 5/19/2005 overcome the following set forth in paper #20050105 mailed on 1/6/2005:

- objections to drawings (paragraphs 1-2);
- objection to specification (paragraph 4);
- rejections to Claims 1-6 and 12 under 35 U.S.C. 112, second paragraph.

2. Applicants' arguments filed on 5/19/2005 with regard to art rejection have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the cited reference to reasonably and properly meet the claimed limitation.

Applicants' argument -- Taubman fails to teach or suggest "identify state variables associated with horizontal and vertical neighboring bits of the selected bits to be processed, determine whether state variables associated with coefficients bits and neighboring bits are zero, and in response to state variables associated with coefficient bits and neighboring bits being all zero, select run length coding." Rather, Taubman is directed at four consecutive samples, not neighboring bits, having a zero state variable.

Examiner's response -- The Examiner disagreed with the conclusion. In the cited passages, Taubman teaches bit-plane coding of pixels in an image, in which the state variable is associated with whether a bit is significant or not. Because Taubman codes pixels bit-plane by

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bit-plane, Taubman is directed at neighboring bits of four consecutive samples. Therefore, Taubman teaching meets all the above-cited limitation.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Taubman (US patent 6,778,709.)

Taubman teaches a method for determining zero coding or run length coding, comprising:

-- in response to a selected bit to be processed with the clean up pass (column 8, lines 57-68; the Normalization pass) , executing an instruction to

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- identify state variables associated with selected coefficient bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are state variables.)

- identify state variables associated with horizontal and vertical neighboring bits of the selected bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are state variables.)

- determine whether state variables associated with coefficients bits and neighboring bits are zero; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

- in response to state variables associated with coefficient bits and neighboring bits being all zero, select nm length coding; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- wherein the state variables are significance state variables; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are significance state variables.)

-- in response to at least one state variable associated with coefficient bits and neighboring bits being non-zero, select zero coding; (column 8, line 57 to column 10, line 43; especially column 9, line 24 to column 10, line 13)

-- wherein the state variables correspond to an array of quantized coefficients being scanned; (column 5, lines 26-36)

-- determine whether state variables associated with coefficients bits and neighboring bits are zero on every four pixels and in every bit plane; (column 10, lines 1-13)

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-- wherein the processor executes instruction compatible with JPEG2000. (column 26, lines 61-65)

Taubman teaches a system, comprising:

-- a memory; (column 21, lines 7-22)

-- a processor to execute an instruction to identify state variables associated with selected coefficient bits to be processed; (column 21, lines 7-22)

-- identify state variables associated with horizontal and vertical neighboring bits of the selected bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are state variables.)

-- determine whether state variables associated with coefficients bits and neighboring bits are zero; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- in response to state variables associated with coefficient bits and neighboring bits being all zero, select run length coding; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- wherein the state variables are significance state variables; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are significance state variables.)

-- in response to at least one state variable associated with coefficient bits and neighboring bits being non-zero, select zero coding; (column 8, line 57 to column 10, line 43; especially column 9, line 24 to column 10, line 13)

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-- wherein the state variables correspond to an array of quantized coefficients being scanned; (column 5, lines 26-36)

-- wherein the processor executes instruction compatible with JPEG2000; (column 26, lines 61-65)

-- wherein the state variable is aligned in the processor's register set. (column 24, lines 36-68; column 25, lines 34-40)

Claims 13-18 are the corresponding medium claims of the methods of Claims 1-6. Because Taubman also teaches medium (memory) to store the instructions associated with the method (column 21, lines 7-22), Taubman also teaches Claims 13-18 (the above-cited passages and column 21, lines 7-22.)

Conclusion

5. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). The Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 571-272-7431. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 571-272-7437. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications. TC 2600's customer service number is 571-272-2600.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Wenpeng Chen
Examiner
Art Unit 2624

August 19, 2005

